AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 03/01078 filed on April 2, 2003.

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Description~~ **BACKGROUND OF THE INVENTION**

Please replace paragraph [0002] with the following amended paragraph:

[0002] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0003] with the following amended paragraph:

[0003] The invention relates to [[a]] **an improved** fuel injection system ~~as generically defined by the preamble to claim 1~~ **for an internal combustion engine**.

Please add the following new paragraph after paragraph [0003]:

[0003.5] Description of the Prior Art

Please replace paragraph [0004] with the following amended paragraph:

[0004] For better understanding of the description and the claims, several terms will first be explained: The fuel injection system of the invention may be either stroke-controlled or pressure-controlled. Within the scope of the invention, a stroke-controlled fuel injection system is understand to mean that the opening and closing of the injection opening is effected with the aid of a displaceable nozzle needle by means of the hydraulic cooperation of the fuel pressures in a nozzle chamber and in a control chamber. A pressure reduction inside the control chamber causes a stroke of the nozzle needle. Alternatively, the deflection of the nozzle needle can be done by means of a final control element (actuator). In a pressure-controlled fuel injection system according to the invention, the nozzle needle is moved by the

fuel pressure prevailing in the nozzle chamber of an injector, counter to the action of a closing force (spring), such that the injection opening is uncovered for an injection of the fuel out of the nozzle chamber into the cylinder. The pressure at which fuel emerges from the nozzle chamber into a cylinder is called the injection pressure, while system pressure is understood to mean the pressure at which fuel is available or is stored inside the fuel injection system. Fuel metering means delivering fuel to the nozzle chamber by means of a metering valve. In combined fuel metering, one common valve is used to meter various injection pressures. In the unit fuel injector (PDE), the injection pump [[of]] **and** the injector form a unit. One such unit per cylinder is built into the cylinder head and driven by the engine camshaft, either directly via a tappet or indirectly via a tilt lever. The pump-line-nozzle system (PLD) operates by the same method. In this case, a high-pressure line leads to the nozzle chamber or nozzle holder.

Page 2, please replace paragraph [0006] with the following amended paragraph:

[0006] It has also proved advantageous if the injection pressure is independent of the engine rpm and load and can be adjusted variably in the performance graph. Multiple injection is also advantageous. ~~Other~~ **Some** engine manufacturers therefore employ common rail systems (CRSs).

Please replace paragraph [0007] with the following amended paragraph:

[0007] To improve the function of a PDE/PLD injection system, a stroke-controlled injector may be used. As a result, in the pumping region of the cam, a multiple injection (preinjection, main injection, postinjection) can be realized. For realizing a multiple injection, a lengthened cam stroke and pump stroke are therefore needed. Moreover, upon triggering a postinjection at high pressure, major superelevations of pressure occur, which can

destroy the injection system. A postinjection is therefore possible only at low injection pressure. Moreover, no injection outside the cam pumping region is possible, which is important for a widely ~~staggered~~ **spaced** postinjection for exhaust gas posttreatment systems.

Please replace paragraph [0008] with the following amended paragraph:

[0008] ~~Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0009] with the following amended paragraph:

[0009] To eliminate ~~these~~ **the above** problems, **in** a fuel injection system ~~defined by claim 1 is proposed. In it,~~ **according to the invention,** the injector region is embodied as a local pressure reservoir, whose stored fuel is used both for injection and for hydraulically closing the nozzle needle. Refinements of the invention are ~~defined by claims 2 through 4. A~~ **disclosed in which a** check valve downstream of the pump element prevents the high-pressure chamber of the injector from depressurizing after the termination of pumping. The stored high pressure can then be utilized for further injections. Both a postinjection at high pressure directly after the main injection can be realized, and a widely staggered postinjection. It is also possible to realize the preinjection of the next cycle from the local pressure reservoir. These multiple injections can be effected outside the cam pumping region, which has structural advantages because the pumping region is made smaller.

Page 4, please replace paragraph [0014] with the following amended paragraph:

[0014] ~~Drawing~~ **BRIEF DESCRIPTION OF THE DRAWINGS**

Please replace paragraph [0015] with the following amended paragraph:

[0015] Three exemplary embodiments of the fuel injection system of the invention ~~are shown in the schematic drawing and explained in the ensuing description. Shown are~~ **described herein below, in conjunction with the drawings, in which**:

Please replace paragraph [0016] with the following amended paragraph:

[0016] Fig. 1[[,]] **is** a hydraulic circuit diagram of a first fuel injection system **embodying the invention**;

Please replace paragraph [0017] with the following amended paragraph:

[0017] Fig. 2[[,]] **is** a hydraulic circuit diagram of a second fuel injection system;

Please replace paragraph [0018] with the following amended paragraph:

[0018] Fig. 3[[,]] **is** a hydraulic circuit diagram of a third fuel injection system;

Please replace paragraph [0019] with the following amended paragraph:

[0019] Fig. 4[[,]] **is** a first pressure course and needle stroke of a fuel injection system of Fig. 1; **and**

Please replace paragraph [0020] with the following amended paragraph:

[0020] Fig. 5[[,]] **is** a second pressure course and needle stroke of a fuel injection system of Fig. 3.

Please replace paragraph [0021] with the following amended paragraph:

[0021] ~~Description of the Exemplary Embodiments~~

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Page 5, please replace paragraph [0023] with the following amended paragraph:

[0023] The injection is effected via a metering of fuel with the aid of a nozzle needle 10 which is axially displaceable in a guide bore. A nozzle chamber 11 and a control chamber 12

are formed. Inside the nozzle chamber 11, a pressure face pointing in the opening direction of the nozzle needle 10 is exposed to the pressure prevailing there, which is delivered to the nozzle chamber 11 via a pressure line 13. Coaxially to a compression spring, a tappet also engages the nozzle needle 10 and with its face end away from the valve sealing face it defines the control chamber 12. The control chamber 12, in terms of the fuel pressure connection, has an inlet with a throttle and an outlet to a pressure relief line 14, which is controlled by a valve unit 15. Via the pressure in the control chamber 12, the tappet is urged by pressure in the closing direction. Upon actuation of the valve unit [[14]] **15**, the pressure in the control chamber 12 can be decreased, so that as a consequence, the pressure force in the nozzle chamber 11 acting in the opening direction on the nozzle needle 10 exceeds the pressure force acting on the nozzle needle 10 in the closing direction. The valve sealing face lifts away from the valve seat face, and fuel is injected. The end of the injection is initiated by re-actuation (closure) of the valve unit [[14]] **15**, which decouples the control chamber 12 from a leak fuel line 14 again, so that a pressure that is capable of moving the nozzle needle 10 in the closing direction builds up again in the control chamber [[14]] **12**.

Page 6, please replace paragraph [0026] with the following amended paragraph:

[0026] Fig. 3 illustrates a further embodiment by means of a fuel injection system [[18]] **20**. Once again, the throttle 16 is provided parallel to the check valve 9 and slowly decreases the pressure in the injector region after the injection. In addition, the throttle 16 here also has a pressure-holding valve 19 connected in series with it. Thus the pressure decrease is effected only down to an exactly defined standing pressure p(s) (for instance, 300 bar), in the line. Thus the result in the local pressure reservoir chamber is a defined pressure level which can be utilized for further injections. This is preferably a preinjection. However, it is also

possible to realize the boot phase of a main injection from this pressure reservoir. Moreover, the hydraulic efficiency of the system is increased, since the injector region is no longer completely depressurized.

Page 7, please replace paragraph [0028] with the following amended paragraph:

[0028] Fig. 5 schematically shows one possible course of pressure P over time in the injector (P_{INJ}) and in the pump element (P_{PDE}), and the needle stroke H at a preinjection (VE), main injection (HE), and postinjection (NE) cycle and a staggered postinjection (ANE). What is shown is a detail over two injection cycles. It can be seen that in the entire period of time between the main injections, an injection from the local pressure reservoir is possible. Especially, a widely ~~staggered~~ **spaced** postinjection and a very early preinjection are possible.

Please add the following new paragraph after paragraph [0029]:

[0030] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.

Please delete page 8.